

Remarks/Arguments:

With the present response, claims 55, 56, 61, 62, 65-77, and 81-89 are pending. Claims 55, 56, 61, 62, 65-77, 81, and 85-88 are under consideration, with claims 82-84 and 89 having been withdrawn from consideration.

Claim rejections

Claims 55, 56, 61, 62, 65-77, 81, and 85-88 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,077,295 to Limon et al. ("Limon") in view of U.S. Patent No. 5,702,418 to Ravenscroft ("Ravenscroft"). Applicants respectfully traverse this rejection.

Independent claims 55, 65, 72, and 81

Claim 55 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising and one or more members for engaging the stent inner periphery *along the length of the stent*, wherein the one or more members for engaging the stent inner periphery comprises one or more radial protuberances that protrude from the inner core and lie along the stent-underlying portion of the stabilizer *along the length of the stent*.

Claim 65 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising one or more members for engaging the stent inner periphery *along the length of the stent without protruding through interstitial openings in the stent inner periphery*.

Claim 72 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of a stent, the stabilizer comprising one or more members, each of the one or more members comprising one or more radial protuberances that protrude from the inner core and lie along the stent-underlying portion of the stabilizer *along the length of the stent*.

Claim 81 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of a stent, the stabilizer comprising one or more members for engaging the stent inner periphery *along the length of the stent, without protruding through interstitial openings in the stent inner periphery*.

Limon discloses a stent delivery system that includes a plurality of projections 30 that at least partially fill in open lattice structure of the stent. Limon fails to disclose or suggest one or more radial protuberances that protrude from the inner core and lie along the stent-underlying

portion of the stabilizer *along the length of the stent*, as is recited in claims 55 and 72. Limon also fails to disclose or suggest one or more members for engaging the stent inner periphery *along the length of the stent without protruding through interstitial openings in the stent inner periphery*, as is recited in claims 65 and 81.

Ravenscroft teaches how the inner surface of a stent bearing on a core and the outer surface bearing on an inner sheath surface in prior art designs creates a "frictional engagement" that "reduces the overall flexibility of the distal end of the stent delivery system," and that "[m]aneuvering a distal end of reduced flexibility through the tortuous paths often encountered in a patient's vessels can increase patient trauma and can, in some cases, make this treatment modality impracticable." Col. 3, lines 37-47. Ravenscroft specifically mentions that an object of his invention is "to provide a stent delivery system with a flexible distal end." Col. 3, lines 62-63. In order to achieve that objective, Ravenscroft discloses a stent delivery system having a core 14 that includes first and second closely spaced rings 23 located at the proximal end *only* of stent 20. In fact, Ravenscroft specifically notes that the presence of stent 20 on the axially spaced rings 23 "does not significantly retard the overall flexibility of the extreme distal end of the catheter" because the rings are "substantially spaced from the distal end tip 13" of delivery catheter 11. Col. 5, lines 31-35. Thus, the location of rings 23 away from the distal end of catheter 11 helps to maintain the desired flexibility of the distal end of catheter 11, such that "the distal portion of the stent 20 floats in a radial sense over the core 17." Col. 5, lines 35-36. Ravenscroft further describes the advantages to a surgeon of a system having such distal end flexibility. Col. 5, lines 36-44.

As shown in Ravenscroft FIG. 1, rings 23 only extend along the proximal end of stent 20, and not *along the length of the stent*, as is recited in each of claims 55, 65, 72, and 81. Ravenscroft teaches away from using rings at the distal end of the catheter, and consequently teaches away from providing rings along the length of the stent, as claimed by Applicant, in order to maintain the stated objective of providing a stent delivery system with a flexible distal end.

Because Ravenscroft teaches away from using rings, or other protuberances, *along the length of the stent*, the proposed combination of Limon and Ravenscroft is improper. Reconsideration and allowance of claims 55, 65, 72, and 81 is respectfully requested.

Claims 56, 61, and 62 all depend from claim 55; claims 66-71 all ultimately depend from claim 65; and claims 73-77 all ultimately depend from claim 72. These claims are patentable over the proposed combination of Limon and Ravenscroft for at least the same reasons set forth

with respect to their respective independent claims. Reconsideration and allowance of claims 56, 61, 62, 66-71, and 73-77 is respectfully requested.

Independent claims 85 and 87

Claim 85 recites, *inter alia*, a stabilizer for deployment of a stent in a distal location inside a body lumen from a proximal access location outside the body, the stabilizer having a stent-underlying portion adapted to be disposed within an interior space defined by an inner periphery of the stent, the stabilizer comprising a non-inflatable inner core and at least one distal protuberance underlying the stent and protruding from the inner core for engaging the stent inner periphery *at a distal end of the stent*.

Claim 87 recites, *inter alia*, a stabilizer having a stent-underlying portion adapted to be disposed within the interior space of the stent, the stabilizer comprising a non-inflatable inner core and at least one member underlying the stent and protruding from the inner core for engaging the stent inner periphery *at a distal end of the stent*.

Limon and Ravenscroft are discussed above. Ravenscroft teaches away from a member protruding from the inner core for engaging the stent *at a distal end of the stent* by specifically requiring rings 23 to be "substantially spaced from the distal end tip 113." Because Ravenscroft teaches away from using rings or any other protrusions at a distal end of the stent, the proposed combination of Limon and Ravenscroft is improper. Reconsideration and allowance of claims 85 and 87 is respectfully requested.

Claim 86 depends from claim 85 and claim 88 depends from claim 87. These claims are patentable over the proposed combination of Limon and Ravenscroft for at least the same reasons set forth with respect to their respective independent claims. Reconsideration and allowance of claims 86 and 88 is respectfully requested.

Conclusion

In light of the above amendments and arguments, Applicants respectfully submit that claims 55, 56, 61, 62, 65-77, 81, and 85-88 are patentable over the cited prior art. Prompt reconsideration and allowance is respectfully requested.

Respectfully submitted,



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